

Recovery Plan Action Status

Plan Name: Unarmored Threespine Stickleback Recovery Plan, Revised

Plan Status: Final Revision 1

Plan Date: 26-Dec-85

Lead Agency: USFWS

Lead Office: Ventura Fish And Wildlife Office

**(805)
644-1766)**

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	1	111	Determine, monitor and regulate water use	Not Started			California State Water Resources Control Board, California Department of Fish and Game, U.S. Forest Service, United States Air Force	Research: Environmental Contaminants, Research: General, Research: Habitat Requirements	Graduate Student, Internal Field Assistance, Volunteer	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands; SWRCB has jurisdiction over issuance of water rights.
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	1	112	Determine, monitor and regulate land use.	Not Started			California Department of Fish and Game, U.S. Forest Service, United States Air Force	Management: Habitat Maintenance and Manipulation, Management: Land Use, Research: Habitat Requirements	Internal Technical Assistance, Species Expert	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands; CDFG is lead agency on private lands
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	113	Develop management agreement with Los Angeles Department of Water and Power.	Not Started			Los Angeles Department of Water and Power, U.S. Forest Service	Other: Administration, Research	Contract, Internal Technical Assistance, Species Expert	Agency costs largely administrative
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	1	114	Maintain essential stream characteristics	Not Started			California Department of Fish and Game, U.S. Forest Service, United States Air Force	Management: Habitat Maintenance and Manipulation, Management: Land Use, Research: Habitat Requirements	Graduate Student, Internal Field Assistance, Species Expert	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands; CDFG is lead agency on private lands
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	1	121	Determine appropriate methods to restore degraded habitat	Not Started			U.S. Forest Service, United States Air Force	Research: Habitat Requirements, Research: Habitat Status, Research: Management Techniques	Graduate Student, Internal Technical Assistance, Species Expert	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands

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Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	1221	Determine supplemental flow volume necessary to maintain UTS	Not Started			California Department of Fish and Game, U.S. Forest Service, United States Air Force	Research	Contract, Graduate Student, Species Expert	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands; CDFG is lead agency on private lands
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	1	1222	Acquire water rights if necessary	Not Started			California State Water Resources Control Board, California Department of Fish and Game, U.S. Forest Service, United States Air Force	Acquisition, Acquisition: Easement, Acquisition: General	Internal Administrative, Internal Technical Assistance, Species Expert	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands; SWRCB has jurisdiction over issuance of water rights.
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	1223	Install apparatus for maintaining supplemental flows	Not Started			U.S. Forest Service, United States Air Force	Management: Land Use, Research: Habitat Requirements	Contract, Graduate Student, Species Expert	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	123	Implement procedures to restore degraded habitat and supplement instream flows	Not Started			U.S. Forest Service, United States Air Force	Acquisition, Management: Habitat Maintenance and Manipulation, Management: Land Use	Graduate Student, Internal Field Assistance, Species Expert	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	131	Identify and investigate potential lands sites needing protection	Not Started			California Department of Fish and Game, U.S. Forest Service	Research: Habitat Requirements, Research: Habitat Status	Graduate Student, Internal Technical Assistance, Species Expert	
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	132	Establish priorities for protection as needed	Planned	FY 2008	FY 2009	U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game, U.S. Forest Service	Research: General	Graduate Student, Internal Technical Assistance, Species Expert	USFS is lead agency within Angeles N.F.; CDFG is lead agency on other lands. Short term priorities have been identified in the 5-year review for this species.
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	133	Secure appropriate parcels	Not Started			California Department of Fish and Game, U.S. Forest Service	Acquisition: Easement, Acquisition: General, Acquisition: Management Agreement	Contract, Internal Administrative, Internal Technical Assistance	USFS will secure parcels as funding permits after priorities established

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Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	1	211	Prevent introduction of exotic organisms	Not Started			U.S. Fish and Wildlife Service, Law Enforcement Division, California Department of Fish and Game, U.S. Forest Service	Management: Predator and Competitor Control, Research: Competition, Research: Predation	Internal Field Assistance, Internal Technical Assistance, Species Expert	FY85 PA 4a
Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	1	212	Remove exotic organisms as needed	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game	Management: Predator and Competitor Control, Research: Competition, Research: Predation	Graduate Student, Internal Field Assistance, Species Expert	CDFG has undertaken action to remove catfish and tilapia from Soledad Canyon.
Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	1	213	Establish contingency plan	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game, United States Air Force	Management: General, Research: General	Contract, Internal Technical Assistance, Species Expert	Includes 2131-2132 USFS has completed plan for Angeles N.F.
Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	1	214	Implement contingency plan	Not Started			California Department of Fish and Game, U.S. Forest Service, United States Air Force	Management: General, Research: General	Contract, Internal Technical Assistance, Species Expert	USFS has obtained necessary equipment for Angeles N.F.
Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	2	221	Determine need for establishing additional populations	Planned	FY 2009	FY 2010	U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game	Research: Propagation, Research: Reintroduction	Graduate Student, Internal Technical Assistance, Species Expert	A study has been proposed by USGS to address this task and is currently being funded.
Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	2	222	Select suitable sites	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game, U.S. Forest Service, United States Air Force	Acquisition: Easement, Acquisition: General, Acquisition: Management Agreement	Graduate Student, Internal Technical Assistance, Species Expert	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands; CDFG is lead agency in other areas
Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	2	223	Restore habitat as necessary	Ongoing Current	Prior to FY 1995		California Department of Fish and Game, U.S. Forest Service, United States Air Force	Acquisition: General, Management: Habitat Maintenance and Manipulation, Management: Planning	Graduate Student, Internal Technical Assistance, Species Expert	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands; CDFG is lead agency in other areas

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Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	224	Obtain transplant stock	Not Started			California Department of Fish and Game	Management: Reintroduction, Research: Genetics, Research: Population Surveys	Contract, Graduate Student, Species Expert	Stock from San Antonio creek was transplanted into Honda Creek on Vandenberg AFB in 1984
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	225	Perform transplants	Not Started			California Department of Fish and Game	Management: Reintroduction, Research: Genetics, Research: Population Surveys	Contract, Graduate Student, Species Expert	See Notes 224
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	1	231	Monitor existing populations through established census techniques	Ongoing Current	Prior to FY 1995		California Department of Fish and Game, U.S. Forest Service, United States Air Force	Research: Demographic Studies, Research: Other Information, Research: Population Surveys	Graduate Student, Internal Field Assistance, Species Expert	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands; CDFG is lead agency on private lands
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	3	232	Monitor transplanted individuals	Not Started			California Department of Fish and Game, U.S. Forest Service, United States Air Force	Research: Propagation, Research: Reintroduction	Graduate Student, Volunteer	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands; CDFG is lead agency on private lands. Monitoring indicates some reproduction in both 1985 and 1984.
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	1	233	Investigate possible existence of additional populations of UTS	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game	Research	Graduate Student, Internal Field Assistance, Species Expert	Several populations south of the Santa Clara River need to be examined
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	31	Determine natural habitat conditions	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game, U.S. Forest Service, United States Air Force	Management: Habitat Maintenance and Manipulation	Graduate Student, Internal Technical Assistance, Species Expert	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands; CDFG is lead agency on private lands

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Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	2	32	Assess effects of exotic predators	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game	Research: Competition, Research: Predation	Graduate Student, Internal Technical Assistance, Species Expert	Evaluating impact of African clawed frog invasion is highest priority research need
Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	2	33	Determine biological needs for nesting, reproduction and rearing young.	Ongoing Current	Prior to FY 1995		Los Angeles County Museum, U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game, Universities	Management: Habitat Maintenance and Manipulation	Graduate Student, Internal Technical Assistance, Species Expert	Current knowledge needs refining
Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	2	34	Determine food requirements	Ongoing Current	Prior to FY 1995		Los Angeles County Museum, U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game, Universities	Management: Habitat Maintenance and Manipulation	Graduate Student, Internal Technical Assistance, Species Expert	Current knowledge needs refining
Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	2	35	Determine water quality and quantity requirements of UTS	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game	Research: Environmental Contaminants, Research: General	Contract, Graduate Student, Species Expert	Some requirements are known, but additional information is needed
Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	1	36	Establish determinants of water distribution and abundance within essential habitat	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game, U.S. Forest Service, United States Air Force	Research: General	Contract, Graduate Student, Species Expert	USFS is lead agency on Forest Service lands; USAF is lead agency on Vandenberg AFB lands
Unarmored threespine stickleback (Gasterosteus aculeatus willamsoni)	2	37	Determine optimum size of UTS population necessary to be self-sustaining	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game	Research: Demographic Studies, Research: General, Research: Population Surveys	Graduate Student, Internal Technical Assistance, Species Expert	

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Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	1	38	Determine genetic composition of populations of unknown origin	Planned	FY 2009	FY 2010	U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game	Research: Genetics, Research: Taxonomic Studies	Graduate Student, Species Expert	Highest priority research needs are resolving taxonomic questions associated with Shay Creek and San Antonio Creek populations. A study has been proposed by USGS and is currently in the process of being funded.
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	3	41	Publicize UTS distribution, identification and legal status	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game, U.S. Forest Service, United States Air Force	Other: Information and Education	Internal Administrative, Internal Technical Assistance, Volunteer	USFS to maintain onsite Santa Clara River displays, USAF to complete on-site San Antonio Creek display; CDFG to develop informational brochures.
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	3	42	Provide relevant organizations with advice to preserve UTS	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game, U.S. Forest Service, United States Air Force	Other: Administration, Other: Information and Education	Internal Field Assistance, Internal Technical Assistance, Volunteer	FY 85 PA 4a
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	3	43	Inform public of transplant efforts	Not Started			California Department of Fish and Game	Other: Information and Education	Graduate Student, Internal Technical Assistance, Volunteer	
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	1	51	Enforce existing laws and regulations.	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Law Enforcement Division, California Department of Fish and Game, U.S. Forest Service, United States Air Force	Other: Information and Education, Other: Law Enforcement, Other: Regulations	Internal Administrative	FY 85 PA 4a
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	52	Designate critical habitat as provided for by the Endangered Species Act	Discontinued	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division	Other: Administration	Graduate Student, Internal Technical Assistance, Species Expert	Critical habitat has been proposed and should be finalized

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Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	53	Determine need for and propose additional laws and regulations	Not Started			U.S. Fish and Wildlife Service, Law Enforcement Division, California Department of Fish and Game, U.S. Forest Service, United States Air Force	Other: Administration, Other: Regulations	Internal Administrative, Internal Field Assistance, Internal Technical Assistance	
Unarmored threespine stickleback (Gasterosteus aculeatus williamsoni)	2	54	Review permits for research projects	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, California Department of Fish and Game	Other: Administration, Other: Regulations	Internal Administrative, Internal Technical Assistance	FY 85 PA 3d